

AMENDMENT TO THE CLAIMS

Listing of Claims

The following listing of claims replace all previous listings or versions thereof:

1. (Currently amended) A method of protecting a cell from organophosphate toxin comprising:

(a) identifying a cell at risk of exposure or exposed to an organophosphate toxin;

~~(a)~~(b) providing an expression cassette comprising a promoter active in said cell and a gene encoding PON1 under the control of said promoter; and

~~(b)~~(c) transferring said expression cassette into said cell under conditions permitting expression of PON1;

wherein said expression cassette expresses PON1 in said cell, providing protection from said organophosphate toxin.

2. (Withdrawn) The method of claim 1, wherein PON1 is PON1 type Q.
3. (Original) The method of claim 1, wherein PON1 is PON1 type R.
4. (Original) The method of claim 1, wherein said cell expresses PON1 type Q.
5. (Original) The method of claim 1, wherein said cell expresses PON1 type R.
- 6-8. (Canceled)
9. (Original) The method of claim 1, wherein said expression cassette further comprises a

polyadenylation signal.

10. (Original) The method of claim 1, wherein said expression cassette is further comprised within a vector.
11. (Original) The method of claim 10, wherein said vector is a viral vector.
12. (Original) The method of claim 11, wherein said viral vector is a herpesviral vector, a retroviral vector, an adenoviral vector, an adeno-associated viral vector, a polyoma viral vector, and a vaccinia viral vector.
13. (Original) The method of claim 11, wherein said viral vector is an adenoviral vector.
14. (Original) The method of claim 1, wherein said promoter is a constitutive promoter.
15. (Original) The method of claim 1, wherein said promoter is an inducible promoter.
16. (Original) The method of claim 1, wherein said promoter is a tissue specific promoter.
17. (Original) The method of claim 4, wherein said expression cassette increases PON1 type Q expression by about 10-fold.
18. (Original) The method of claim 5, wherein said expression cassette increases PON1 type R expression by about 10-fold.
19. (Original) The method of claim 1, wherein said cell is a liver cell.
20. (Original) The method of claim 1, wherein said cell expresses low levels of PON1 type Q or R as compared to the general population.

21. (Currently amended) A method of protecting a subject from an organophosphate toxin comprising:

(a) ~~identifying a subject at risk of exposure or exposed to an organophosphate toxin;~~

~~(a)~~(b) providing an expression cassette comprising

(i) a promoter active in cells of said subject,

(ii) a gene encoding PON1 under the control of said promoter; and

~~(b)~~(c) administering to said subject said expression cassette under conditions permitting expression of PON1;

wherein said expression cassette expresses PON1 in said cell, providing protection from said organophosphate toxin.

22. (Previously presented) The method of claim 21, wherein PON1 is PON1 type Q.

23. (Previously presented) The method of claim 21, wherein PON1 is PON1 type R.

24. (Previously presented) The method of claim 38, wherein said viral vector is a herpesviral vector, a retroviral vector, an adenoviral vector, an adeno-associated viral vector, a polyoma viral vector, and a vaccinia viral vector.

25. (Original) The method of claim 21, wherein administering comprises intravenously or intraarterially.

26-35. (Canceled)

36. (Previously presented) The method of claim 21, wherein said expression cassette further

comprises a polyadenylation signal.

37. (Previously presented) The method of claim 21, wherein said expression cassette is further comprised within a vector.
38. (Previously presented) The method of claim 37, wherein said vector is a viral vector.
39. (Previously presented) The method of claim 38, wherein said viral vector is an adenoviral vector.
40. (Previously presented) The method of claim 21, wherein said promoter is a constitutive promoter.
41. (Previously presented) The method of claim 21, wherein said promoter is an inducible promoter.
42. (Previously presented) The method of claim 21, wherein said promoter is a tissue specific promoter.
43. (Previously presented) The method of claim 21, wherein cells of said subject express low levels of PON1 type Q or R as compared to the general population.